Assessing Task-based English Language Needs of Medicine Students: Are They Aligned with Pedagogical Tasks in EMS Courses?

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Abstract

Assessing learners' present and real life language needs can contribute to learners' active participation in learning processes. Assessing learners' task-based needs and aligning them with pedagogical tasks are significant in English for medical purpose (EMS) courses. The main objectives of the present study were to assess learners' needs and to determine whether they are practiced in EMS courses. In this study, pedagogical tasks practiced in EMS courses at universities of medical sciences in Iran were identified and the task-based language learners practiced by stakeholders in real life situations were assessed. The results showed that some of the pedagogical tasks were not aligned with the real life task-based needs. Moreover, the pedagogical tasks and task-based needs were not aligned in terms of mode, channel, and degree of interaction. The results can be applied by EMS teachers and material developers for meeting the learners' specific needs.

Keywords: EMS, Task-Based Needs, Real Life Needs, Pedagogical Tasks

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1. Introduction

English as an international language has affected different aspects of life and society. Among these aspects is education which seems to be the most significant. Due to the requirements of rapid communication, proficiency in a common language seems to be significant (Ellis & Johnson, 1994). It is argued that competitive demands of government, corporations, and industry require an effective and understandable language within that economy and technology. Factors, such as Britain's colonialism and the economic power of the U.S. and the tendency towards American products made English language as the dominant medium of international communication (Harmer, 2007). Therefore, the demand for quality English language teaching seems to be necessary.

As Hutchinson and Waters (1994) argue, such a realization along with students' specific needs for English courses in the late 1960s led to the emergence of English for specific purposes (ESP). The need for ESP specialism, as Harding (2007) argues, has arisen due to the existence of a large number of different professions all of which share commonalities, including specialized texts and interaction, specific needs, identifiable working environment, technical specialized vocabulary, and documentation. Therefore, ESP lays great emphasis on language skills, functions, structures and vocabulary that are required by the members of a target group in their professional environment to meet these subject-specific needs in ELT (Bojovic, 2006; Flowerdew & Peacock, 2001; Jackson, 1995). However, Hutchinson and Waters (1994) argue that ESP is not a particular kind of language or methodology but an approach to language learning which is based on learners' needs.

ESP is also defined as a language course or program in which the content and aims of the course are tuned by the specific needs of a particular group of

learners (Jackson, 1995, 1998). ESP differs from general English (GE) in materials for teaching and/or learning (Jordan, 1997). According to Vičič (2011), via teaching ESP, students would be prepared for their future business life because material selection is a significant part of ESP teaching. Practically speaking, ESP deals with enabling the learners to use English in academic and professional settings (i.e., for members of different professions, such as doctors, nurses and engineers). ESP focuses on the learner and one of the greatest contributions of teaching ESP is the emphasis it puts on the thorough analysis of the students' needs when designing the course. The analysis includes an assessment of the current level of knowledge students possess and determining the target situation, what the student wants to achieve.

According to Hutchinson and Waters (1994), ESP can be further divided into different types of ESP, differentiated on the basis of the learners' purposes for learning English, such as English for academic purposes (EAP), English for occupational Purposes (EOP), or English for vocational purposes (EVP), English for medicine students (EMS).

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1.1.EMS

EMS, as one branch of ESP, has received great attention in medical universities all over the world particularly the universities which register students from non-English speaking countries (Skelton & Whetstone, 2012). According to the Association of International Physicians and Surgeons of Ontario (2002), the international medical graduates who are qualified in communicative skills are the best route to solving the doctor shortage problem. In Iran, medical students take one or two general English courses as well as two or three ESP courses. In addition, the references of the majority of technical courses which medicine students take are in English. Therefore, it seems that medicine students are

required to master English for medical purposes. In doing so, assessing students' language needs to be flexible in program design and implementation and to observe the institutional constraints (Swales, 1988, 1990) seems to be of much significance.

1.2. Needs Assessment

In the review of related studies, needs assessment (NA) has been defined differently. Brown (1995) defines NA as "the systematic collection and analysis of all subjective and objective information necessary to define and validate defensible curriculum purposes that satisfy the language learning requirements of students within the context of particular institutions that influence the learning and teaching situation" (p. 36). In this definition, it is inferred that defensible curriculum deals with its accountability for meeting the requirements of a particular group of students and their instructor(s) or other stakeholders. NA is defined by Dudley-Evans and St. John, (1998) as a means of establishing the "what and how of a course" (p. 122). This way, the syllabus is likely to be motivating for learners, who see the obvious relevance of what they are studying. Moreover, most ESP courses are subject to time constraints and time must be effectively utilized (West, 1994). As students in ESP classes often have restricted time to learn English, it is reasonable to teach them just the prespecified segments of English based on their needs. Therefore, in terms of syllabus design and course development, the task of the ESP course developer is to identify the needs of the learner(s) and design the specific course in mind around them (Basturkmen, 2006, 2010).

1.3. Task-based NA

Task based language teaching (TBLT) views tasks as the analytic unit of the syllabus and organizes a course around different types of tasks (Long, 2005; Long & Crookes, 1992; Nunan, 1989, 1991). Principles underlying TBLT also lay more emphasis on the significance of developing pedagogic tasks based on authentic (real-world) tasks which learners need to perform through the target language after or during the course. Therefore, to develop a TBLT program, conducting a task-based NA for identifying real-world target tasks and developing pedagogic tasks based on them seems to be very necessary. Task-based NA is assumed to increase the real-world relevance of the course and to enhance learners' motivation and interest. Robinson (2001) argues:

Adopting tasks as the unit of analysis helps to ensure a high degree of real-world relevance, since they are based on a needs analysis of target performance objectives, thereby most likely increasing student interest and motivation in classroom pedagogic activities, and the possibility of direct transfer of the abilities developed in classrooms to similar situational contexts (p. 292).

Long (2005) suggests that task-based needs analysis is more advantageous than other traditional needs analysis approaches, such as learning- centred approach (Hutchinson & Waters, 1994), present situation analysis (Richterich & Chancerel, 1980) and target situation analysis (Munby, 1978) because it provides more valid data on the target tasks, it identifies the real world uses of the language, and its results can be readily used as input for the content-based or task-based course design. Long and Norris (2000) manifest the significance of task-based needs analysis in six steps to develop a TBLT, including:

- a. Conducting needs analysis to identify target tasks;
- b. Classifying target tasks into target task types;

- c. Deriving pedagogic tasks;
- d. Sequencing pedagogic tasks;
- e. Implementing syllabus with appropriate methodology;
- f. Assessing student achievement using task-based, criterion-referenced performance tests.

Therefore, the approach of Task-Based Learning (TBL) in teaching ESP can be widely applied at university level (Kavaliauskienė, 2005). However, the area of learning outcomes in TBL and learners' preferences to various types of tasks remains unexplored. This research aims to fill this gap which might help language practitioners structure their everyday teaching activities.

1.4. The Present Study

Despite the importance of ESP and the great emphasis laid on the alignment of pedagogical tasks (i.e., the tasks which are mainly used in English textbooks for medical students and used by teachers and learners in order to learn more effectively) and target tasks (i.e., the tasks which medical students perform after getting graduated from the university in their real job environments), no one has appropriately investigated whether there is an alignment between the pedagogical tasks used in ESP classrooms and textbooks for medical students and real life or not?

The main objective of the present study was to assess the pedagogical tasks in EMS and the real life tasks which EMS practitioners deal with after getting graduated from the universities. More specifically, the following research questions were addressed:

- 1. What are the main pedagogical tasks in teaching ESP to Iranian medical students?
- 2. What are the main real life (target) tasks encountered by medical ESP stakeholders?

2. The Study

2.1. The Context

This study was conducted at Tehran Medical University of Medical Sciences (TUMS). This university consists of different departments and students of each department take 2 courses on GE and 2 ESP courses. To be more limited to the research questions, we selected the medicine department in which we could have easy access to the students and physician consisting of both faculty members and administrators. At TUMS, GE courses are taught by teachers with English language teaching major but EMS courses are taught by faculty members with degrees of physician (subject matter teachers).

2.2. The Participants

Ten EMS teachers who have been teaching EMS to the students for at least five years of medical science and twelve physicians (working in clinical centres) participated in this study. They were all selected through purposive sampling. The EMS teachers who have been graduated from one of the universities of medical sciences were selected. Also, physicians with Ph.D degree and experience of teaching EMS courses to the students of medical science and working in clinical centres were selected. The criterion for the number of the participants was data saturation point. In this study, the data saturation point emerged when the tenth students and the eighth physicians were interviewed.

All the participants were Iranian (originally from Tehran) and native speakers of Persian.

2.3. Data Collection Methods

This study was conducted at two different stages. At first stage for assessing the pedagogical tasks, different data collection methods, including content analysis of the textbooks, non-participant observations and semi-structured interviews with both students and physicians were employed to triangulate the methods and to enhance the credibility of the research findings. However, for assessing the real-life task-based needs of the stakeholders, in-depth interview was employed. In both stages, from the very beginning, the researchers did their best to establish an atmosphere of trust to avoid probable changes in the teachers and students' real behaviours and teaching activities during the observations. For this purpose, the researcher reassured the participants that the purpose of the study was not to assess their performance, but rather to identify and assess the pedagogical tasks and real life task-based needs of the students of medical sciences. Moreover, to earn the participants' trust, the researcher assured them the collected data are anonymous and confidential.

2.3.1.Content Analysis of the Textbooks

The textbooks which were taught to undergraduate students of medical sciences including general English textbooks and the textbooks taught as English for students of medical sciences were analysed in terms of the tasks which students and teachers did during the teaching sessions and the activities which the students were required to do as self-assignments. The textbooks were evaluated by the researcher and one of the colleagues. The pedagogical tasks

which were reported by the two evaluators were labelled as the most commonly practiced pedagogical tasks.

2.3.2. Non- Participant Observation

Five ESP classes were observed at TMUS by the researcher. Ten full sessions of each ESP course were observed. Moreover, to make sure that the teachers and the students did not change their normal practices the observer did not take part in the sessions regularly. The observer was trained to write all the activities which both ESP teachers and the students did from the beginning of the session till it was over. The observer's notes were given to the researchers and were coded. The pedagogical tasks which were practiced in 80% of the ESP classes were labelled as the most commonly practiced pedagogical tasks in ESP classes at universities of medical sciences in Tehran.

2.3.3. Semi-Structured Interviews with Physicians

In order to assess task-based real life needs of the physicians in the target situations 12 physicians were interviewed. All interviews were conducted by researcher. To avoid any misunderstandings, the interviews were conducted in Farsi, the physicians and the researcher's first language, and technical vocabulary associated with ESP teaching and applied linguistics was avoided to provide opportunities for physicians to interact appropriately with the interviewer. To elicit physicians' in-depth comments, the researcher let the conversation move on in a more interactive manner. The interviews took from 50 min to 1 h and 10 min. The participants were asked to elaborate on the tasks which need language to do when they are working in the clinical centres, teaching at universities, and attending international conferences.

2.4. Data Analysis

The data of the study were analysed at two different stages. In order to analyse the pedagogical tasks, at first the ESP course books were evaluated by the researcher and his colleague in terms of the practiced pedagogical tasks. The tasks which were reported by the two evaluators were coded. Then, they were matched with the tasks reported by the observer. The observed tasks whichhave happened at least 8 times during the 12 sessions of each ESP class were coded as practiced pedagogical tasks. The others were coded as 'non-routine' pedagogical tasks.

In the second stage, the real life task-based language needs were analysed. In doing so, the interview results were immediately transcribed verbatim. Data were analysed by a modified version of the constant comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985). The constant comparative method consists of four steps: (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the construction, and (4) writing the construction (Glaser & Strauss, 1967). In the first step, meaningful descriptions of language needs were identified, coded, compared, and then a preliminary classification into categories was performed. Analyzed data from each interview were constantly compared to each other in order to fit them into the most appropriate category. In the second stage, descriptions of language needs were compared to the preliminary version of the definitions of the various categories. Descriptions were resorted to increase the coherence of each category. Stage three was completed when redundant categories had either been deleted or integrated into existing categories. Data collection and analysis were conducted until data saturation was reached.

3. Results of the Study

3.1. Pedagogical Tasks Practiced by Teachers and Students

After analyzing the contents of medical EMS textbook and analyzing the notes and checklists written by the non-participant observer, and matching the tasks practiced in the EMS classes with those used in the textbooks, the following list of tasks emerged. The most frequently practiced pedagogical tasks are presented and briefly explained in Table 1.

Table 1. The Most Frequently Practiced Pedagogical Tasks in EMS Classrooms

Task	Channel	Language used	Degree of interaction
Comprehending	Witten	English/ Persian	little
Responding	Oral/written	English/Persian	Little
Rehearsing	Oral	English/ Persian	Little
Translating	Written	Persian	Very little
Composing	Written	English	Little
Presenting	Oral	Both languages	little
Problem solving	Written	English	Very little
Evaluating	Oral/written	English/ Persian	Little

As the results in Table 1 show, the main pedagogical tasks most frequently practiced in the EMS classes of universities of medical sciences include comprehending, responding, rehearsing, translating, composing, presenting, problem solving and describing. Each of these pedagogical tasks is described in the following sections.

a. Comprehending: Comprehending reading passages is most frequently practiced task in EMS classrooms. That is, the task of the students is to comprehend passages which are all adapted from medical textbooks. The results of class observation showed that the students were only required to comprehend some passages on the medical issues.

- b. Responding: Responding is the next pedagogical task used in EMS courses. However, the students were only required to respond to the teachers' questions which elicited their knowledge of vocabulary and technical vocabulary. This task is usually done through Persian although a few students attempted to respond in English.
- c. Rehearsing: The third type of pedagogical tasks is rehearsal. That is, the participants were required to practice the new words inside and outside the classrooms. Rehearsal task in EMS classrooms at universities of medical sciences is limited to the recently learned words, expressions, and structures.
- d. Composing: The next practiced task in EMS classes is composing through which the students are required to compose sentences using the learned words, expressions, and structures either in the classroom or outside the classroom.
- e. Presenting: Through this task the students are required to present short lectures on the related issues and to explain some terms in English and sometimes in Persian.
- **f. Problem solving:** Through this task the students are required to find the synonyms, antonyms, definitions, and parts of speech of each word. It is also carried out through written language.
- **g. Describing:** The students are required to describe some terms which were specified in the textbooks. These terms are all about medicine. Sometimes they describe them in English and sometimes in Persian.
- **h. Evaluating:** The students are required to evaluate the sentences to see whether they are grammatically correct or not, and to give comments on the translations and responses provided by their classmates. This task was less frequently practiced than describing task.

i. Correcting: The least frequently used pedagogical task is correcting through which the participants are required to correct the ungrammatical sentences produced by themselves or the other students. They are sometimes required to correct the English to Persian translations done by the other students.

3.2. Real Life Task-Based Needs of the Physicians in Target Situations

The interviewees' responses were content analyzed. The main real life task-based language needs of the medical students and physicians after getting graduated from the universities emerged. The needs reported by 80% of the participants were listed as the most dominant real life task-based needs of students of medical sciences. A summary of these tasks is provided in Table 2.

Table 2. Real Life Task-Based Needs of the Physicians in Target Situations

Task	Channel	Language used	Degree of interaction
Responding	Witten/oral	English/ Persian	High
Evaluating	Oral/written	English/Persian	High
Composing	Oral/written	English/ Persian	High
Correcting	Written /oral	Persian/ English	High
Comprehending	Written /oral	English/Persian	High
Presenting	Oral/written	Both languages	High
Interacting	Written/oral	English/ Persian	High
Giving information	Oral/written	English/ Persian	High
Receiving information	Oral/written	English/ Persian	High
Performing	Oral/written/	English/ Persian	High
Personal expression	Oral/written	English/ Persian	High

As the results in Table 2 show, medical students' real life task based needs vary to a great extent from the pedagogical tasks which they perform in EMS classrooms. They are discussed in the following section.

Responding This task includes giving a response to the raised questions, comments, short messages, e-mails, letters, and suggestions provided by any of the discourse community members including patients and their companions, colleagues, and administrators' through written or oral formal and informal language. Without appropriate knowledge in general and technical English, such type of tasks cannot be accomplished.

Evaluating: Through this task the physicians and EMS teachers are required to evaluate the patients' health conditions, their colleagues or staff's performance, the quality of a medical instrument, or published academic work including papers, journal and textbooks. They are also needed to evaluate the orally presented paper, and the hospital facilities. The tone of language is formal and informal written or oral language.

Composing: This real life task includes composing a paper, a written or oral response to a request or a critique raised by any of the stakeholders and discourse community members. This can also be realized in different settings through a formal or informal tone.

Correcting: It includes correcting the mistakes in a paper, book, or any oral description provided by one of the discourse community members either in oral orwritten language.

Comprehending: This task-based real life needs include comprehending the interactions (commands, questions, requests) among the members, comprehending the textbooks, brochures, journal, magazines, papers and directions related to hospitals, equipment, medical universities, descriptions of the patients, drugs and experiments. This task is either oral or written. Students need to be familiar with both technical and general contents.

Presenting: The discourse community members, including physicians, faculty members and/ or administrators, might present a lecture, report, and

findings of a study or an experiment to the members and administrators,. It might be presented in oral or written language in different settings. In doing so, higher levels of involvement and interaction is needed.

Interacting: Through this task discourse community members act together or towards others or with others to accomplish a task, such as a surgery operation, physical examination and X-rays,

Giving and receiving information: the people involved might need to give/ receive information to/from each other. In doing so, they have the ability to understand each other and speak English accurately and comprehensibly.

Personal expression: sometimes, the discourse community members need to express their personal ideas, suggestions, wants, desires, suggestions,

Performing: The participants may need to perform tasks, such as doing an X-ray, physical examination, surgery, interjecting, helping the patients to take drug, preparing the patients for surgery, providing operation room, discharging the patients,

4. Discussion

The first objective of the present study was to identify the pedagogical tasks which are used in EMS classrooms in universities of medical sciences. The results of the study showed that the main pedagogical tasks which were most frequently used in the EMS classes of medical university include comprehending, responding, rehearsing, translating, composing, presenting, problem solving and describing. Moreover, content analysis of the notes taken by the observant showed that the degree of interaction between the members of discourse community was little and mostly in Persian, the native language of the students of the medical students. However, the content analysis of the interviews with participants showed that some tasks including performing,

giving information, receiving information, and personal expression will be performed by the discourse community members in real life situations, which are rarely practiced by teachers or students in EMS classes. Nor are they practiced in the textbooks provided for EMS classes. The degree of involvement and interaction required for performing the real-life tasks is high and mastery in both written and oral English language skills is needed. Therefore, it could be strongly argued that EMS classes are not taught in line with the assumptions of task-based language teaching proposed by Nunan (1991).

The results also showed that pedagogical tasks are not aligned with the real life-task based needs of the students of medical sciences. Accordingly, it could be argued that unlike the assumption that in communicative language teaching the learner is central: s/he should have the opportunity to participate in meaningful interaction in order to respond to genuine communicative language needs (Nunan, 1991; Skelton & Whetstone, 2012), it seems that in EMP classrooms, the students do not have the chance to have a meaningful interaction with their teachers and classmates. It was observed that the medium of instruction and interaction was greatly in Persian and partially in English. Moreover, the reading skill was somehow focused in EMS classrooms but the other language skills were not highly emphasized. The EMS students did several tasks, such as translating from L1 to L2, rehearsal, composing sentences, and responding but the medium was a combination of oral and written language in both English and Persian.

In line with the results of the present study, it could be argued that all pedagogical tasks used in EMS classrooms were carried out through reading and writing skills to some extent. Some tasks were performed through using students' L1. The second objective of the present study was to analyze the real

life tasks of the medical ESP practitioners. The results showed that in EMS courses stakeholders make use of English language in different ways for doing different tasks. Briefly speaking, in order to perform the mentioned task, the discourse community members need to be proficient in both general language skills as well as technical language skills. Without proficiency in general and technical language skills, they might not be able to do the mentioned tasks.

The results of the present study showed that there is little correspondence between the pedagogical tasks in medical ESP courses and the real life tasks. The only language skill which is given appropriate attention was technical reading skill; whereas the real life tasks are carried out through all four language skills. It could be strongly argued that such real life tasks are not covered in ESP classrooms. Therefore, the contents of ESP courses are not in accordance with the students' needs. Its irrelevance branches up several other issues, such as making urgent changes in course outlines and/or redesigning the courses within a short period of time and/or a lack of student motivation. The question as to why the contents selected turn out to be irrelevant when implemented in the class has more than one answer: lack of freedom/interest on the part of the ESP practitioner, unavailability of standardized outlines, inappropriate system of conducting needs analysis, lack of authentic material, outdated libraries, unavailability of refresher courses for the ESP practitioners and a their lack of awareness regarding internet and its use (Abdulaziz et al, 2012).

Another reason for lack of correspondence between pedagogical tasks and real life tasks is that usually there is no formal needs analysis conducted before starting an ESP course. The students' existing level of proficiency and target situations are perceived in different ways, such as asking students' opinions on what they think they need, which can be misleading. Again, the only reason for

this is explicitly the lack of EMS teacher training and indirectly, the lack of EMS culture in the context of the study. When the needs of the students are not thoroughly investigated in order to design a course for them, it affects ESP teaching in more than one way. This leaves the following impacts on ESP teaching:

- a) Since the teachers are not trained, they usually rely on their intuition and students' responses as to what they think they need which is not equivalent to what they need.
- b) Since the courses are not needs oriented, they do not serve the true objective of the learners.
- c) In a majority of cases, the course outline is provided by the institution.

Therefore, it could be strongly argued that ESP/EMS teacher training is the solution to it. Training teachers can prove fruitful. If the teachers are not trained, the administration can conduct a needs analysis and provide the teaching faculty with an outline to develop their courses. Consultation with ESP experts and doing a self-study on ESP can also serve well.

5. Conclusion

Based on the results of the present study and review of the related literature, the following conclusions can be made:

- 1. Pedagogical tasks in medical ESP courses are not aligned with target language use situation tasks.
- Pedagogical tasks in ESP courses are not always performed in English. Mostly, they are carried out in Persian.
- 3. Comprehending technical passages in ESP courses and real life situation is somehow aligned.

- 4. The contents of ESP courses taught to students of medicine should be changed favouring the stakeholders' needs in real life situations.
- 5. The medical students need to take more ESP courses so that they can meet their language needs in real life situations.
- 6. All language skills are crucial to medical universities and those involved with them.
- 7. Teachers should encourage students to speak English in their ESP classes and provide them with whatever they need to develop their language.
- 8. ESP teachers should analyze the students' needs so that they can maximize the similarities and minimize the disparity.

As the present study was carried out in universities of medical sciences, the findings can be theoretically and practically implied by different groups of stake holders, including EMS teachers, EMS text developers, students of medicine, physicians and the other members of medicine discourse community. For example, institutes, particularly medical universities, can make a change in the policy of teaching EMS to medical students, such as reducing the class size, increasing time of the EMS courses and recruiting teachers familiar with concepts and theories of ESP and EMS. In line with the findings, ESP/EMS teachers should shift to learner-oriented approaches to teaching language particularly while they are teaching language to students at tertiary levels. That is, they have to teach in line with the students' real academic and real life situations needs. This can be done through analyzing the students' present and target needs.

Medical students should know that whatever they learn through their English courses at universities might not suffice. Therefore, they need to develop their language skills (receptive and productive) through self-studies.

Moreover, it could be argued that because of the nature and context of the study, the results must be generalized to the other universities with great care because there are some differences between the facilities of the other universities and language proficiency of the students. Because of the sample size and sampling procedure as well as the context of the study, the other researchers are strongly recommended to compare teaching ESP/EMS to medical universities of Iran and some other universities in non-English speaking countries. Moreover, other researchers are strongly recommended to investigate ESP courses in terms of all components such as teachers' teaching approaches, assessment methods as well as materials.

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